system for IVIS.

- G. Front end processor brochure.
- H. Voice synthesizer DECTALK.
- I. Suitable photo sensor device.
- J. Telephone sensor system Telephone management system by Digital.
  - K. Suitable magnetic strip reader GTE Micro-Fone.
- L. Central processing center Brochure for Digital VAXII-750 System.
- M. Telenet overview Information on the Telenet system, used indirectly, links the insurance company terminals to the central data processing center, so that either the insurance company terminal or data processing center can access the appropriate Telenet account according to stored program commands to transmit data to the account or retrieve data from the account.

Additionally, in response to the Examiner's comments regarding the Applicant's earlier U.S. Patent No. 4,359,631, now the subject of Reissue Application No. 671,705 filed November 15, 1984, a Terminal Disclosure is enclosed restricting the term of any patent granted on this application to that of the earlier patent or any patent reissued thereon. The fee of \$25.00 is also enclosed.

Regarding the Examiner's objections that insufficient hardware and software details are given in the Specification to enable one skilled in the art to carry out the invention, it is

submitted that the description taken with the various flow charts shown in Figures 3 to 7 would be sufficient to allow a skilled systems analyst to put together the standard components used, for example those shown in enclosed documents C to M, and to write the necessary software to control the components in the described fashion. In support of this the declarations of systems analysts John P. Shartz and Tom McCarthy are enclosed (see enclosed documents A and B).

The basic system as described in the Specification is a new communication system which allows insurance companies (or other institutions such as travel agents, financial institutions, and so on) and customers to interact utilizing the various components of the system to create fictitious salespersons e.g. insurance agents. Business can be transacted, information such as insurance quotations can be received, insurance policies can be purchased and payments made, all as if a live salesperson were present.

The system utilizes standard hardware components known in the field (see enclosed brochures) but which are connected together and programmed to operate in a novel way so as to create the described interaction between the customer and fictitious salesperson.

It is believed that the description of the various hardware components given in the Specification would be sufficient for one skilled in the field to know which components to use, and to know

how those components are connected together in a standard fashion. The following is a list of the standard components used in the preferred embodiment of the invention as related to the reference numerals in the drawings:

## COMPONENTS RELATED TO PATENT NUMBERS

Patent Fig.	1	Central Proc	essor #	22= VAX	11/	750	
_		Telecommunic	ation N	letwork i	<b>#</b> 5=	GTE,	Telenet.

Patent Fig. 2 Telephone Sensor #18= Telephone Management System

Modem #21= Telephone Management System
Front-End Processor #14= PDP-11/23
Magnetic Strip Reader #19= Micro-Fone
Printer #20=LA-50 Letterprinter
Voice Synthesizer #16= DEC=TALK
Entry Sensor #17= Entry Sensor

Patent Fig. 2 Touch Pad #13=See IVIS
Color Moniter #8= See IVIS
Processor #10= See IVIS
Video Disc Player #9= See IVIS, Sony player
Software Unit #13= See IVIS
Mass Memory #11= See IVIS, it is in a
Winchester hard disc.

#### 1. VIDEO SUBSYSTEM

The interactive video subsystem is described on page 10, lines 10 to 16 of the Specification, and is preferably the Digital PRO IVIS System. The enclosed documents labelled C and D are brochures describing the Digital Equipment Corp. PRO IVIS system and the production of Interactive Videodiscs for use in such a system. One skilled in the field could easily obtain this information and be able to produce a suitable videodisc to carry out the interactions described in detail on pages 13 to 18 and shown in the flow diagrams. The IVIS control programming to change the sequence of video material in accordance with the

customer's input via the touch screen is done with an "authoring" system. The enclosed documents (E) describe Digital's software development system for creating interactive IVIS programs, and documents (F) are the indexes of Digital manuals describing the authoring system. It is maintained that a person with ordinary programming skill given this information would be able to implement the necessary program to run the interactive video subsystem.

### 2. COMMUNICATIONS SUBSYSTEM

The front end processor 14 is described in the Specification as a PDP-11/235 computer or equivalent. A brochure (G) describing this type of computer is enclosed. Those skilled in the relevant field would be well aware of the standard peripheral devices described on pages 10 and 11 of the Specification, and could use the devices shown in documents H to K, for example, to implement the system. All of these are standard devices which can accept imputs from a PDP-11/23S or other computer via standard RS232C terminal ports (See DECTALK brochure H, for example) This would be well known to one skilled in the field.

## 3. INTERFACING OF VIDEO AND COMMUNICATIONS

## SUBSYSTEMS

The PRO 350 Digital Equipment Corp. has a number of terminal ports, each of which will accept an input via standard RS232C terminals. The entire system (video and communications) of the sales terminal in the preferred embodiment uses Digital

components which plug into the ports of the PRO 350 Digital microprocessor which drives the IVIS system (See IVIS brochures). Such interfacing is standard in the field and a skilled systems analyst would be able to interconnect the various components as shown in the drawings and described in the Specification, and would be able to program the system to provide the necessary command signals to manage the various components.

# 4. CENTRAL PROCESSING CENTER 1 (See Figure 1).

The use of a central data processing center remotely linked to a terminal so that data can be exchanged between the two locations is well known to those skilled in this field. One suitable central processing unit for use in this system is the Digital VAX11/750 system (See enclosed brochure (L)). Communications between the CPU and the terminal microprocessor are via standard MODEM links which are well known to those skilled in the field.

### 5. INSTITUTION TERMINALS AND TELENET COMMUNICATIONS SYSTEM

The use of Telenet to transfer data indirectly between remote computers is well known in the field (See GTE Telenet overview document (M). It is maintained that it would be easily possible for one skilled in the art to provide the hardware interfaces and write the necessary programming to achieve the OFF-LINE processing for transfer of information between central data processing center and institution the terminal as outlined in the Flow Chart in Figure 7 of and as described on pages 20 to 22 of the drawings

Specifications. This is supported by the enclosed declaration 1(b) of Thomas F. McCarthy.

## 6. COMPLETE SYSTEM

is well established that in the case of a program implemented invention every detail need not appear in if the skill in the relevant field is such Specification, what does appear will enable one skilled in the art to make and use the invention. It should be noted that in order to practice invention it is not necessary to understand the operation of the computers and peripheral devices, but only to understand the mechanics of programming and the listing and organization of the various data bases. The implementing and software are sufficiently disclosed Specification by means of text, block diagrams and flow diagrams, is clearly possible for one skilled in the art to obtain suitable hardware components and their operating manuals and to interface the components as described in the associated operating manuals.

It is submitted that it would be superfluous in this case to disclose specific step-by-step programming instructions in the form of the various sub-routines for running the system. Such instructions will vary from programmer to programmer and will be dependent on the programming language used. Should a person practicing the invention want to use different computers, such step-by-step programming instructions would be of little or no

help at all, and the person would in fact have to work from the flow charts included in the Specification.

It it therefore submitted that the Specification does provide an adequate description of the invention to enable the person skilled in the art to carry it out.

It is further submitted that the amended claims are not vague or indefinite as maintained by the Examiner on pages 3 to 5 of the Office Action. The following is a consideration of the specific points raised by the Examiner with respect to the Claims in the order they appear in the Office Action.

Claim 1 - The Specification describes the central data processing center as including a memory for storing program information and other data (page 12, lines 18-19). Such a memory would be dependent on the computer used and could be bulk or solid state memory. It is not necessary for the claim to define what sort of memory is used in such specific terms. "Means for storing.... information" clearly covers the standard computer memory.

The other language in Claim 1 which has been objected to by the Examiner has been revised and it is believed that each feature of Claim 1 is now clearly defined and that the scope of Claim 1 is clear when taken together with the Specification. Thus the "means for gathering information" is defined as "customer-operated input means". This is keyboard unit 8 in the preferred embodiment of the invention, which may be a touch pad 13 displayed on a touch screen monitor such as the VR241 DEC monitor (See page 10, lines 13 to 16). It is believed that the

scope of "customer-operated input means" in Claim 1 is now clear.

The "means for dispensing information and services" of Claim 1 is described on page 11, lines 21 to 23 and page 12, lines 1 to 8, and in the preferred embodiment it is the printer unit 20.

Thus it is submitted that each item in Claim 1 can be identified in the description. For example the audio-visual means for customer interaction is specified as follows:

- (a) means for storing a sequence ..... i.e. the video disc player.
  - (b) means for transmitting ..... i.e. the video screen.
- (c) input means ..... i.e. the touch pad displayed on the screen.
- (d) controlling means ..... i.e. the PFP-11/23 microprocessor and associated software according to Flow Charts in Figures 3 to 6.

The data receiving and transmitting means of Claim 1 are embodied in the front end processor of Figure 2 and its associated software for controlling the printer and modem links. The front end processing unit comprises the "means for directing operation ....." of Claim 1, as described on page 10, lines 17 to 21 of the Specification.

It is believed that Claim 1, as amended, is sufficiently clear and sets out the essential hardware and software components of Applicant's invention and the manner in which they interact to implement the invention.

Claim 2 It is believed that this claim is clear since "sales terminal" in line 3 in fact does refer to the sales terminal, as stated. This is clearly the case since the "means for collecting credit information" is a magnetic strip reader in the preferred embodiment of the invention as described on page 12, lines 2 to 8, and this is clearly part of the sales terminal.

Claim 3 The antecedent for "credit information collecting means" is found in lines 3-4 of Claim 2, i.e. "means responsive....for collecting credit information.

Claim 4 has been amended to define "means for remotely linking in the Specification.

Claim 5 The described Telenet link is in fact indirect since the institution terminals and central computer do not communicate directly, but only indirectly via their account in the Telenet computer. It is therefore believed that the language used in Claim 5 is a correct description of this link.

Claims 6 and 7 have been deleted.

Claim 8 has been amended to define the touch screen for displaying a touch pad ("keyboard"). Touch screens for operator control are well known (see IVIS brochures) and have a grid so that when the operator touches any area a response is sensed. The creation of such a "keyboard" or touch pad is now standard in the field and one skilled in the field would have no problem in creating the necessary software. It would be well understood by one skilled in the field that a touch screen can be used as both

the display unit and touch pad for operator control (this clearly the case in the IVIS system).

Claim 9 Amended Claim 1 provides antecedent basis for "means fo. dispensing....."

Claim 10 has been amplified to more clearly define the use of the system for dispensing insurance quotes and policies. Thus the central data processing center includes "means for performing insurance quote calculations". This will be provided by appropriate software as described in the Specification.

In conclusion, it is submitted that all the claims are now clear in scope when taken with the Specification. It is further submitted that the Specification does provide sufficient information to enable one skilled in the field to carry out the invention.

It is therefore believed that this application is now in condition for allowance, and early notice to this effect is earnestly solicited.

Respectfully submitted,

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